

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference JA179F/JH	FOR FURTHER ACTION		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US 96/ 18339	International filing date(<i>day/month/year</i>) 08/11/1996	(Earliest) Priority Date (<i>day/month/year</i>)	
Applicant THE PROCTER & GAMBLE COMPANY et al.			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.

☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the title, ☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is:

Figure No. 2 ☒ as suggested by the applicant.

☐ None of the figures.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 96/18339

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A61F13/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5 399 174 A (YEO RICHARD S ET AL) 21 March 1995 see column 5, line 11 - line 22 see column 6, line 22 - line 57 see column 8, line 19 - line 61 ---	14-18 1-5, 7-12,21, 22
X A	US 5 458 590 A (SCHLEINZ ROBERT J ET AL) 17 October 1995 see column 6, line 44 - line 48 see column 7, line 34 - line 53 ---	14-17 1-5, 7-11,21, 22
	-/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

27 June 1997

Date of mailing of the international search report

18.07.97

Name and mailing address of the ISA

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Authorized officer

Mirza, A

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 96/18339

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96 19349 A (KIMBERLY CLARK CO) 27 June 1996	14-16
A	see page 1, line 5 - line 6	1-5,13, 20-22
	see page 4, line 30 - page 5, line 3	
	see page 7, line 7 - line 28; example 3	

X	EP 0 691 203 A (KIMBERLY CLARK CO) 10 January 1996	14,15
A	see page 2, line 7 - line 23	1-5,7,8, 13,16, 21,22
	see page 4, line 43 - line 57	
	see page 5, line 50 - line 51	

X	WO 95 16562 A (KIMBERLY CLARCK CORP) 22 June 1995	14-16
	see page 8, line 4 - line 8	
	see page 8, line 24 - line 29	
	see page 15, line 7 - line 17	
A	see page 15, line 33 - line 37	1-5, 7-11,21, 22

X	WO 96 07376 A (KIMBERLY CLARK CO) 14 March 1996	14-17
A	see page 5, line 28 - line 34	1-5, 8-11,21, 22
	see page 6, line 11 - line 26	
	see page 8, line 7 - line 19	
	see page 9, line 20 - line 29	
	see page 12, line 31 - line 37	
	see page 14, line 7 - line 32	

A	US 5 439 458 A (NOEL JOHN R ET AL) 8 August 1995	6,20
	see column 8, line 62 - column 9, line 5	

A	US 5 369 858 A (GILMORE THOMAS ET AL) 6 December 1994	1,3,4,7, 21,22
	see page 20, line 19 - line 25	
	see column 5, line 36 - line 40	
	see column 6, line 4 - line 9	

A	EP 0 532 005 A (KIMBERLY CLARK CO) 17 March 1993	4
	see page 3, line 37 - line 39	
	see page 22, line 8 - line 14; table 1	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/US 96/18339

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5399174 A	21-03-95	AU 673450 B AU 7136594 A BR 9406751 A CA 2099843 A EP 0698138 A FR 2704243 A JP 8508553 T WO 9423107 A US 5599420 A ZA 9401609 A	07-11-96 24-10-94 27-02-96 07-10-94 28-02-96 28-10-94 10-09-96 13-10-94 04-02-97 12-10-94
US 5458590 A	17-10-95	NONE	
WO 9619349 A	27-06-96	AU 4642196 A FR 2728280 A GB 2300594 A,B ZA 9510307 A	10-07-96 21-06-96 13-11-96 11-06-96
EP 0691203 A	10-01-96	AU 2046595 A BR 9502680 A CA 2148392 A FR 2720684 A GB 2290052 A JP 7329249 A ZA 9504516 A	14-12-95 28-05-96 07-12-95 08-12-95 13-12-95 19-12-95 13-05-96
WO 9516562 A	22-06-95	AU 1335395 A CA 2116081 A CN 1142798 A EP 0734321 A FR 2713983 A FR 2717737 A GB 2285408 A PL 315183 A ZA 9410026 A	03-07-95 18-06-95 12-02-97 02-10-96 23-06-95 29-09-95 12-07-95 14-10-96 22-08-95
WO 9607376 A	14-03-96	AU 3151195 A CA 2199539 A ZA 9507027 A	27-03-96 14-03-96 26-03-96

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/US 96/18339

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5439458 A	08-08-95	US 5304161 A	19-04-94
		US 5460622 A	24-10-95
		US 5486167 A	23-01-96
		AT 119382 T	15-03-95
		AU 665937 B	25-01-96
		AU 9167191 A	17-08-92
		BR 9107262 A	19-04-94
		CA 2098322 A,C	04-07-92
		CN 1066776 A	09-12-92
		CZ 9301335 A	16-03-94
		DE 69108059 D	13-04-95
		DE 69108059 T	07-09-95
		EP 0565606 A	20-10-93
		ES 2069416 T	01-05-95
		HK 94296 A	07-06-96
		HU 67763 A	28-04-95
		IE 65744 B	15-11-95
		JP 6503983 T	12-05-94
		NZ 241204 A	24-03-97
		PL 168901 B	31-05-96
		PT 99976 A	31-05-94
		SK 68393 A	11-05-94
		WO 9211830 A	23-07-92
		US 5611790 A	18-03-97
<hr/>			
US 5369858 A	06-12-94	EP 0418493 A	27-03-91
		JP 3137257 A	11-06-91
<hr/>			
EP 0532005 A	17-03-93	US 5192606 A	09-03-93
		AU 658439 B	13-04-95
		AU 2350992 A	25-03-93
		CA 2060743 A	12-03-93
		DE 69215465 D	09-01-97
		DE 69215465 T	27-03-97
		DE 69217817 D	10-04-97
		EG 19718 A	30-08-95
		EP 0539703 A	05-05-93
		ES 2094262 T	16-01-97
		ES 2097846 T	16-04-97
		JP 5245168 A	24-09-93

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

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in its capacity as elected Office

Date of mailing (day/month/year) 23 June 1998 (23.06.98)	
International application No. PCT/US96/18339	Applicant's or agent's file reference JA179F/JH
International filing date (day/month/year) 08 November 1996 (08.11.96)	Priority date (day/month/year)
Applicant UEDA, Kimio	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
28 May 1998 (28.05.98)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

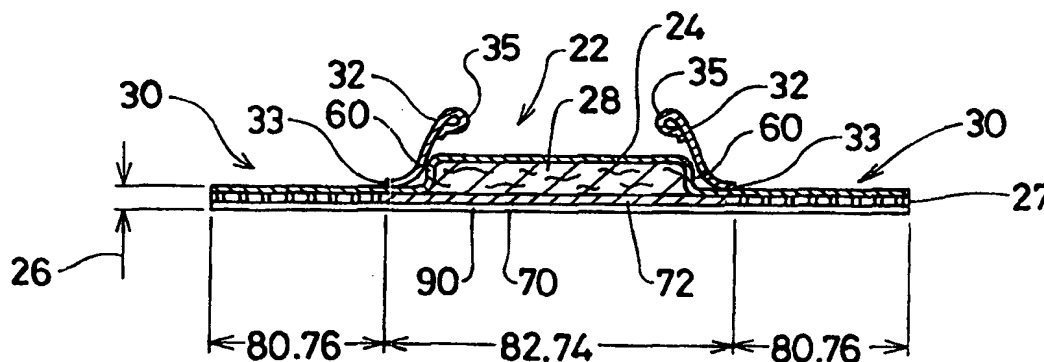
made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer F. Zotomayor Telephone No.: (41-22) 338.83.38
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: A61F 13/15	A1	(11) International Publication Number: WO 98/20822 (43) International Publication Date: 22 May 1998 (22.05.98)
(21) International Application Number: PCT/US96/18339 (22) International Filing Date: 8 November 1996 (08.11.96) (71) Applicant (for all designated States except US): THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): UEDA, Kimio [JP/JP]; 2-19-13-402, Miyamachi, Sumiyoshi, Higashinada-ku, Kobe 658 (JP). (74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: ABSORBENT ARTICLE HAVING SOFT-CLOTHLIKE BACKSHEET



(57) Abstract

A disposable absorbent article such as an absorbent diaper comprises a containment assembly comprising a topsheet, a backsheet and an absorbent core disposed between the topsheet and the backsheet. The backsheet comprises a nonwoven web positioned at the outermost of the absorbent article, for covering at least a portion of the outermost portion of the absorbent article. The backsheet has a hand value of Koshi of less than about 11.0, a hand value of Shari of from about 5.0 to about 7.0, and a hand value of Fukurami of less than about 0.5. Preferably, the backsheet has a fuzz level of less than about 0.24 mg/cm². More preferably, the nonwoven web is a spunbonded nonwoven web. In a preferred embodiment, the spunbonded nonwoven web has a tensile strength of at least 180 gf/cm in the traverse direction of the disposable absorbent article. Preferably, the backsheet further comprises a plastic film having an outer-facing surface and a body-facing surface, and the nonwoven web is joined with the outer-facing surface of the plastic film to form a laminate. In a preferred embodiment, the nonwoven web is made of spun-bonded plastic fibers of a polyethylene and a polypropylene.

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INTERNATIONAL SEARCH REPORT

Int. Application No
PCT/US 96/18339

A. CLASSIFICATION OF SUBJECT MATTER
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Minimum documentation searched (classification system followed by classification symbols)
IPC 6 A61F

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Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5 399 174 A (YEO RICHARD S ET AL) 21 March 1995 see column 5, line 11 - line 22 see column 6, line 22 - line 57 see column 8, line 19 - line 61 ---	14-18 1-5, 7-12,21, 22
X A	US 5 458 590 A (SCHLEINZ ROBERT J ET AL) 17 October 1995 see column 6, line 44 - line 48 see column 7, line 34 - line 53 ---	14-17 1-5, 7-11,21, 22
	-/--	

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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

27 June 1997

Date of mailing of the international search report

18.07.97

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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 96/18339

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	see page 1, line 5 - line 6	1-5,13, 20-22
	see page 4, line 30 - page 5, line 3	
	see page 7, line 7 - line 28; example 3	

X	EP 0 691 203 A (KIMBERLY CLARK CO) 10 January 1996	14,15
A	see page 2, line 7 - line 23	1-5,7,8, 13,16, 21,22
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	see page 5, line 50 - line 51	

X	WO 95 16562 A (KIMBERLY CLARCK CORP) 22 June 1995	14-16
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	see page 8, line 24 - line 29	
	see page 15, line 7 - line 17	
A	see page 15, line 33 - line 37	1-5, 7-11,21, 22

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A	see page 5, line 28 - line 34	1-5, 8-11,21, 22
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A	US 5 439 458 A (NOEL JOHN R ET AL) 8 August 1995	6,20
	see column 8, line 62 - column 9, line 5	

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	see page 22, line 8 - line 14; table 1	

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International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 5458590 A	17-10-95	NONE	
WO 9619349 A	27-06-96	AU 4642196 A FR 2728280 A GB 2300594 A,B ZA 9510307 A	10-07-96 21-06-96 13-11-96 11-06-96
EP 0691203 A	10-01-96	AU 2046595 A BR 9502680 A CA 2148392 A FR 2720684 A GB 2290052 A JP 7329249 A ZA 9504516 A	14-12-95 28-05-96 07-12-95 08-12-95 13-12-95 19-12-95 13-05-96
WO 9516562 A	22-06-95	AU 1335395 A CA 2116081 A CN 1142798 A EP 0734321 A FR 2713983 A FR 2717737 A GB 2285408 A PL 315183 A ZA 9410026 A	03-07-95 18-06-95 12-02-97 02-10-96 23-06-95 29-09-95 12-07-95 14-10-96 22-08-95
WO 9607376 A	14-03-96	AU 3151195 A CA 2199539 A ZA 9507027 A	27-03-96 14-03-96 26-03-96

INTERNATIONAL SEARCH REPORT

Information on patent family members

In. tional Application No

PCT/US 96/18339

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5439458 A	08-08-95	US 5304161 A	19-04-94
		US 5460622 A	24-10-95
		US 5486167 A	23-01-96
		AT 119382 T	15-03-95
		AU 665937 B	25-01-96
		AU 9167191 A	17-08-92
		BR 9107262 A	19-04-94
		CA 2098322 A,C	04-07-92
		CN 1066776 A	09-12-92
		CZ 9301335 A	16-03-94
		DE 69108059 D	13-04-95
		DE 69108059 T	07-09-95
		EP 0565606 A	20-10-93
		ES 2069416 T	01-05-95
		HK 94296 A	07-06-96
		HU 67763 A	28-04-95
		IE 65744 B	15-11-95
		JP 6503983 T	12-05-94
		NZ 241204 A	24-03-97
		PL 168901 B	31-05-96
		PT 99976 A	31-05-94
		SK 68393 A	11-05-94
		WO 9211830 A	23-07-92
		US 5611790 A	18-03-97

US 5369858 A	06-12-94	EP 0418493 A	27-03-91
		JP 3137257 A	11-06-91

EP 0532005 A	17-03-93	US 5192606 A	09-03-93
		AU 658439 B	13-04-95
		AU 2350992 A	25-03-93
		CA 2060743 A	12-03-93
		DE 69215465 D	09-01-97
		DE 69215465 T	27-03-97
		DE 69217817 D	10-04-97
		EG 19718 A	30-08-95
		EP 0539703 A	05-05-93
		ES 2094262 T	16-01-97
		ES 2097846 T	16-04-97
		JP 5245168 A	24-09-93